

REMARKS

Claims 1 – 22 are pending. Claims 7, 8, and 13 have been canceled. Claims 1 – 6, 9 – 12, 14, 16, 17, 19, and 20 have been amended. Upon entry of this amendment, claims 1 – 6, 9 – 12, and 14 – 22 will be pending. No new matter has been added.

Support for amendments to the claims can be found throughout the specification. Support for “copolymer” can be found, for example, at page 5, lines 24 – 25 and page 6, lines 5 – 7. Support for “atom transfer radical polymerization” and for step (i) can be found, for example, at page 12, line 12 – page 13, line 14. Support for step (ii) can be found, for example, at page 38, line 25 – page 39, line 4.

Rejections Under 35 U.S.C. § 102(b)

Claims 1 and 15 – 22 have been rejected under 35 U.S.C. 102(b) as allegedly being anticipated by WO 2000/55251, as interpreted by the English language equivalent Hakuta et al. (US 6,864,315, “Hakuta”). Specifically, the Office Action contends that Hakuta teaches components (A) – (D) of instant claim 1. Applicants traverse the rejections.

Claims 1 and 20, as amended, requires the main chain of the vinyl copolymer to be produced by atom transfer radical polymerization. Specifically, the vinyl copolymer is produced by a process comprising the steps of: (i) subjecting a vinyl monomer to atom transfer radical polymerization to produce a copolymer; and (ii) reacting a compound selected from the group consisting of isoprene, piperylene, butadiene, myrcene, 1,5-hexadiene, 1,7-octadiene, 1,9-decadiene, and 4-vinyl-1-cyclohexene with the copolymer from step (i). The resulting vinyl copolymer is different from the ethylene/ α -olefin/non-conjugated polyene random copolymer rubber disclosed by Hakuta, because the copolymer rubber of Hakuta has constituent units derived from norbornene compounds rather than from isoprene, piperylene, butadiene, myrcene, 1,5-hexadiene, 1,7-octadiene, 1,9-decadiene, and 4-vinyl-1-cyclohexene, as recited in instant claim 1. As such, component (A) as recited in the instant claims is not taught by Hakuta.

For at least the reason stated above, the claims, as amended, are not anticipated by Hakuta, and withdrawal of the rejections is respectfully requested.

Fujita and Hakuta

Claims 1 – 22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over WO 1999/07803, as interpreted by the English language equivalent Fujita et al. (US 6,388,006, “Fujita”), further in view of Hakuta. Applicants traverse the rejections.

First, Fujita does not teach or suggest each and every limitation of instant claims 1 and 20, as amended. Fujita discloses a pressure sensitive adhesive composition which contains a vinyl polymer. See col. 3, lines 6 – 17. The vinyl polymer is obtained through polymerizing a vinyl monomer. See col. 3, lines 31 – 36 and lines 48 – 49. As such, the vinyl polymer is different from the vinyl copolymer recited in instant claims 1 and 20, because at least two monomers are required to produce a vinyl copolymer. Further, as the Office Action concedes, Fujita does not teach component (D), a metal soap.

Second, there is no motivation to modify Fujita to include a metal soap. The Office Action contends that Hakuta teaches metal stearates as processing aids, and it is *prima facie* obvious to add a known ingredient to a known composition for its known function. Applicants respectfully point out that neither Hakuta, Davis (US 5,468,550), Lee (US 5,733,480), or Garcia Duran (US 6,753,372) discloses the specific function served by metal stearates. The references merely provide laundry lists of many possible additives that can be added to polymers, without providing specific motivation to choose metal stearates among others. See Hakuta, col. 44, lines 1 – 8 and col. 46, lines 20 – 27; Davis, col. 8, line 63 – col. 9, line 3; Lee, col. 7, lines 1 – 11; Garcia Duran, col. 3, lines 26 – 32. Applicants further submit that a known function of metal stearates is to serve as metal soaps to facilitate mold release. However, Fujita is directed to a pressure-sensitive adhesive, which, by definition, is an adhesive that develops maximum bonding power when applied by a light pressure only. See McGraw-Hill Dictionary of Scientific and Technical Terms, 4th Edition, attached. Because easy mold release contradicts pressure-sensitivity, one of ordinary skill in the art would not have been motivated to add a metal soap such as a metal stearate to the composition of Fujita.

For at least the reasons stated above, a *prima facie* case of obviousness has not been established, and withdrawal of the rejections is respectfully requested.

Kusakabe and Hakuta

Claims 1 – 2 and 14 – 22 have been rejected under 35 U.S.C. 103(a) as being unpatenable over Kusakabe et al. (US 5,986,014, “Kusakabe”) in view of Hakuta. Applicants traverse the rejections.

First, Kusakabe does not teach or suggest each and every limitation of instant claims 1 and 20, as amended. Kusakabe discloses a (meth)acrylic polymer having alkenyl groups at the chain ends. However, the polymer of Kusakabe is different from the vinyl copolymer recited in instant claims 1 and 20, because the polymerization process of Kusakabe does not involve isoprene, piperylene, butadiene, myrcene, 1,5-hexadiene, 1,7-octadiene, 1,9-decadiene, or 4-vinyl-1-cyclohexene. As such, Kusakabe does not teach component (A) of instant claims 1 and 20. Further, as the Office Action concedes, Kusakabe does not teach component (D), a metal soap.

Second, there is no motivation to modify Kusakabe to include a metal soap. Kusakabe is directed to a (meth)acrylic polymer. However, Hakuta discloses processing aids for rubbers. See col. 46, lines 20 – 27; Davis discloses conventional additives to ethylene-propylene copolymers (EPM) and ethylene-propylene-diene terpolymers (EPDM). See col. 3, lines 27 – 28 and col. 8, line 63 – col. 9, line 3; Lee discloses additives to polyolefin compositions. See col. 3, lines 59 – 63 and col. 7, lines 1 – 11; Garcia Duran discloses additives to polyolefin compositions. See col. 1, lines 7 – 10 and col. 3, lines 26 – 46. Because the polymers are different, the references fail to provide motivation to add a metal soap to the methacrylic polymer of Kusakabe.

For at least the reasons stated above, a *prima facie* case of obviousness has not been established, and withdrawal of the rejections is respectfully requested.

CONCLUSION

The claims are believed to be allowable.

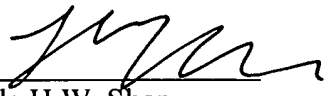
The Examiner is invited to contact the undersigned at (202) 220-4200 to discuss any matter concerning this application.

In the event that the filing of this paper is deemed not timely, Applicants petition for an appropriate extension of time. The Office is authorized to charge any additional fees or credit any overpayments to deposit account 11-0600 of Kenyon & Kenyon LLP.

Respectfully submitted,
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